7th Grade Summer Math Packet

Name: _____

2018-19

Mathematicians look for patterns, persevere in solving difficult problems, construct reasonable arguments, and work together. To do these things, we need some tools. This packet will help you sharpen your tools to be prepared for 7th grade math.

Please complete each of these problems over the summer and **bring the completed packet with you on the first day of school.** This will be your first quiz grade of the year. If you do not remember how to complete a particular problem, use Khan Academy to help.

Fraction Operations

1. $\frac{1}{3} + \frac{2}{9} =$ _____

2. $\frac{3}{4} + \frac{5}{6} =$ _____

3. $1\frac{2}{3} + \frac{4}{9} =$ _____

4. $3\frac{3}{5} - 2\frac{2}{3} =$ _____

5. $\frac{5}{6} \cdot \frac{1}{11} =$ _____

6. $\frac{7}{9} \cdot \frac{3}{14} =$ _____

7. $\frac{2}{3} \div \frac{1}{6} =$ _____

8. $\frac{3}{10} \div \frac{9}{20} =$ _____

Decimal Operations

9. 6.3 + 3.7 + 5.89 = _____

10. 2 + 0.7 + 11.47 = _____

11. 6.1 - 1.4 = _____

12. $9.8 \cdot 3.52 =$ _____

13. $83.08 \div 6.2$ = _____

14. $26.5 \div 5.3$ = _____

Order of Operations

15. $6 \cdot 3 + 376 \div 8 - 5 + 4^3$ = _____

16. $(12 + 14) \cdot 8 \div (8^2 \div 4^2)$ = _____

Equations

Solve for x.

17. x + 5 = 11

18. 21 = 3x

19. 12 = x - 9

20. 6x = 48

Ratios

21. Write three ratios that are equivalent to the ratio 4:10

    a. _____ : _____

    b. _____ : _____

    c. _____ : _____

22. Jude can run 5 miles in 30 minutes.

    a. How many minutes per mile is that?

    b. How many miles per minute is that?

23. One dozen cookies cost $5.50.
    a. At that rate, how much does one cookie cost?

    b. At the same rate, how much would 30 cookies cost?

Percents

24. What is 25% of 80? _____

25. What is 10% of 560? _____

26. 8 is what percent of 12? _____

Problem-Solving

27. Place parentheses in the following equation to make it true.

$$6 + 6 \div 6 \cdot 6 - 6 = 0$$

28. Maeve had 2 quarters, 1 dime, and 3 pennies. Belle had 2 nickels. Maeve gave 3 of her coins to Belle. Belle then had 1 cent more than Maeve. What 3 coins did Maeve give to Belle?

Bonus: Use what you know about ratios to double or triple or half (or some other amount) a recipe this summer. Take photos of what you make and of the original recipe. Be prepared to tell the class about it when school starts in the fall.